BEFORE THE ENVIRONMENTAL APPEALS BOARD

FOR THE STATE OF DELAWARE

SOUTHERN NEW CASTLE COUNTY ALLIANCE and DELAWARE WILD LANDS, INC.,	)	
Appellants,	)	
v.	)	Appeal No. 2006-02
SECRETARY OF THE DEPARTMENT OF NATURAL RESOURCES AND ENVIRONMENTAL CONTROL OF THE STATE OF DELAWARE and NEW CASTLE COUNTY,	)	
Appellees.	)	

DECISION AND FINAL ORDER

Pursuant to due and proper notice of time and place of hearing served on all parties in interest, the above-stated cause of action came before the Environmental Appeals Board ("Board") on March 13, 2007, in the Auditorium of the Richardson & Robbins Building, located at 89 Kings Highway, Dover, Kent County, Delaware.

Members of the Board present and constituting a quorum were: Nancy J. Shevock (Chair), Stanley Tocker, Ph.D, Peter McLaughlin, Gordon E. Wood, Harold Gray, Harry Hunsicker and Sebastian LaRocca. Deputy Attorney General Frank N. Broujos represented the Board.

Southern New Castle County Alliance ("SNCCA") and Delaware Wild Lands, Inc. ("DWL") (collectively "Appellants") were represented by Kenneth T. Kristl, Esquire and Jennifer A. Murphy, Esquire of the Mid-Atlantic Environmental Law Center. Mr.

Kristl was admitted *pro hac vice* in accordance with Delaware Supreme Court Rule 72 ("Rule 72") to appear in this matter and represent SNCCA and DWL.

Deputy Attorney General Kevin P. Maloney represented the Division of Natural Resources and Environmental Control of the State of Delaware ("DNREC") and DNREC Secretary John A. Hughes ("Secretary").

Assistant County Attorney Dorie L. Cole, Esquire and F. Paul Calamita, Esquire, represented New Castle County ("NCC"). Mr. Calamita was admitted *pro hac vice* in accordance with Rule 72 to appear in this matter and represent NCC.

STATEMENT OF THE CASE AND PROCEEDINGS

NCC's Department of Special Services submitted two separate applications to DNREC related to NCC's ongoing operations conducted at its wastewater treatment plant known as the Middletown-Odessa-Townsend Regional Water Farm No. 1 ("MOT Plant"), located near the Town of Odessa in New Castle County, Delaware.

The first application, submitted by NCC on March 28, 2003, requested the renewal and modification of NCC's surface water discharge permit ("NPDES Permit") issued pursuant to the federal National Pollutant Discharge Elimination System ("NPDES") of the federal Clean Water Act and 7 *Del. C.* Ch. 60. A draft NPDES permit was subsequently issued by DNREC on December 14, 2005.

The second application, submitted by NCC on November 4, 2005, requested an amendment of NCC's Land Treatment System Permit ("LTS Permit") related to the spray irrigation of treated effluent and sought reduction of the spray irrigation buffer zone from

150 feet to 75 feet, thereby increasing the affected acreage to allow a maximum of 1.33 million gallons per day ("mgd") of effluent to be discharged.

A consolidated public hearing was conducted by DNREC Hearing Officer Robert P. Haynes ("Hearing Officer") on March 30, 2006 to solicit and consider public comment on the two NCC applications and the draft NPDES Permit issued by DNREC. Following that hearing, the Hearing Officer submitted a report dated May 15, 2006 ("Hearing Officer's Report") to the Secretary, setting forth recommended findings and conclusions regarding the issuance of the Permits.

Thereafter, the Secretary issued Order No. 2006-W-0025 (with an effective date of June 6, 2006) regarding NCC's applications. The Order incorporated the Hearing Officer's Report and accepted the Hearing Officer's recommendations. The Order also directed the issuance of final permits (an amended LTS Permit and the NPDES Permit based upon the draft permit) consistent with those recommendations.

On June 24, 2006, Appellants, *pro se*, filed a statement of appeal notice ("First Notice of Appeal") of the Secretary's Order with the Board. Thereafter, on July 17, 2006, another statement of appeal notice ("Second Notice of Appeal") was filed with the Board. On the Second Notice of Appeal, which was also filed *pro se*, Appellants were joined by the Town of Odessa ("Odessa") as an additional named appellant. Odessa was not a named appellant (or referenced in any manner) in the First Notice of Appeal.

The Board, through the Chair, made an initial determination that Odessa, as an appellant in Second Notice of Appeal, had not filed its appeal within the 20 day

requirement under 7 *Del. C.* §6008(a)[1]. Accordingly, written notification was sent by the Chair to Odessa (care of its Mayor, the Honorable Kathleen N. Harvey) on August 11, 2006 to provide notice that the appeal had not been timely filed and that the "matter would be placed on the Board's next meeting agenda to be dismissed as untimely". Despite the late filing, Odessa was informed in that correspondence that it could move to intervene in the appeal. There was no formal communication to Appellants regarding the Second Notice of Appeal as they had previously filed a timely appeal (the First Notice of Appeal) with the Board approximately three weeks earlier.

Prior to the March 13, 2007 hearing on this matter, and on a schedule stipulated to by the parties, various pre-hearing motions were filed by DNREC and NCC. Specifically, DNREC filed a "*Motion in Limine and to Limit Scope of the Appeal*" and a "*Motion to Dismiss for Lack of Standing*". NCC filed a "*Motion for Summary Decision*". Appellants filed responsive pleadings and DNREC and NCC subsequently filed replies to Appellants' responses.

In addition, on February 6, 2007, DNREC filed a "*Motion to Quash Subpoena Directed to Ronald Graeber*" in response to a subpoena issued, at Appellants' request, by the Board and served on DNREC employee Ronald Graeber for his testimony on behalf of Appellants at the hearing.

By agreement of the parties, a hearing was conducted by the Board on March 13, 2007 to consider the pre-hearing motions. By further agreement of the parties, the Board did not hear or consider the merits of the appeal outside the context of the motions.

---

[1] 7 *Del.C.* §6008(a) provides: "[a]ny person whose interest is substantially affected by any action of the Secretary may appeal to the Environmental Appeals Board within 20 days of receipt of the Secretary's decision or publication of that decision."

MATTERS BEFORE THE BOARD

A. DISMISSAL OF THE TOWN OF ODESSA AS APPELLANT

The Board, *sua sponte*, by a unanimous vote of 7-0, approved a motion to dismiss the Town of Odessa as an appellant in this matter, due to the late filing of its appeal on July 17, 2006. Odessa, as an appellant, filed an appeal (joined by Appellants) more than 20 days following receipt or publication of the Secretary's decision, the statutory timeframe for filing appeals to the Board prescribed by 7 *Del.C.* §6008(a) and Board Regulation 105(1.1).[2]

Prior to the hearing, no written or verbal communication objecting to the Board's initial determination as to the timeliness of Odessa's appeal was provided to the Board nor was a Motion to Intervene filed with the Board requesting Odessa be added as a party to the appeal. Further, after due notice, no Odessa representative appeared at the hearing to object to or otherwise contest the Board's determination of the timeliness of its appeal or to move to intervene.

The dismissal of Odessa as a party on the Second Notice of Appeal did not dismiss, as untimely, the entire Second Notice of Appeal. Pending its consideration of DNREC's *Motion in Limine and to Limit Scope of the Appeal,* the Board took no position on the issues and arguments raised by Appellants in the Second Notice of Appeal.

B. DNREC's *MOTION IN LIMINE AND TO LIMIT SCOPE OF THE APPEAL*

The Board next considered DNREC's *Motion in Limine and to Limit Scope of the Appeal* and heard legal argument from counsel. In its motion, DNREC requests that the

[2] *Environmental Appeals Board Regulation* 105(1.1) states: "Pursuant to 7 *Del.C.* §6008, any person whose interest is substantially affected by any action of the Secretary may appeal to the Environmental Appeals Board within twenty (20) days after the Secretary has announced the decision."

Board preclude Appellants from expanding the scope of their appeal by raising new or expanded issues in the Second Notice of Appeal that were not specifically (and timely) raised by Appellants as issues in the First Notice of Appeal. Consequently, DNREC requests the Board limit Appellants' issues on appeal to two specific issues raised in the First Notice of Appeal, to wit: (1) the Secretary's issuance of the Order despite the "lack of a sludge management plan" regarding the temporary storage of sludge in Lagoon No. 2 at the MOT Plan, without defining "temporary" or establishing timeframes for NCC to prepare and submit such a plan; and (2) "concerns regarding the total nitrogen loads that could be introduced into the Appoquinimink River" (of the MOT Plant's treated effluent discharge) and the Secretary's failure to require such a limit be included in the NPDES Permit.

DNREC contends that a "new" issue related to "odors" caused by the temporary storage of sludge was raised in the Second Notice of Appeal and is distinguishable from Appellants' concerns about the lack of a solid management plan (and the odors that may result from the temporary storage of sludge in the absence of a plan) raised in the First Notice of Appeal. DNREC further contends that a "new" issue related to "flow limitations" in the NPDES Permit was not referenced by Appellants at all in the First Notice of Appeal and introduced for the first time in the Second Notice of Appeal.

In support of its Motion, DNREC argues that (1) the additional issues were not timely raised as the Second Notice of Appeal was filed on July 17, 2006, beyond the 20-day statutory period prescribed by 7 *Del.C.* §6008(a) and Board Regulation 105(1.1); and (2) the issues were not raised with "sufficient specificity" to notify DNREC (and the

Board) of the reasons for the appeal, in accordance with Board Regulation 105(2.1).[3] As a result, DNREC contends the Second Notice of Appeal is a legal nullity and a matter not properly before the Board for consideration. DNREC also claims it is prejudiced by the late filing of these two additional issues by having to undertake a costly and prolonged defense of issues not timely raised or properly noticed in the First Notice of Appeal.

In response, Appellants contend that the issues which were timely raised in the First Notice of Appeal are not substantially different from those raised in the Second Notice of Appeal. Appellants note that the First Notice of Appeal was prepared *pro se* and, for that reason, argue that the Board should afford some leeway when interpreting and construing the language used to describe the issues being raised by the Appellants in that pleading.

The Board considered the record below, as well as the parties' pre-hearing written submissions and legal argument from counsel at the hearing with respect to this motion. Thereafter, by a unanimous vote of 7-0, the Board granted a motion to deny DNREC's *Motion in Limine and to Limit Scope of the Appeal*, thereby allowing the issues raised by Appellants in the Second Notice of Appeal to proceed to a hearing on the merits, subject to the Board's consideration of the remaining pre-hearing motions. The following are the Board's findings and conclusions:

With respect to the "odors" issue in the Second Notice of Appeal, the "lack of a sludge management plan" issue raised by Appellants in the First Notice of Appeal specifically references (and quotes) the April 21, 2006 memorandum[4] (hereinafter the

---

[3] *Environmental Appeals Board Regulation* 105(2.1) states, in part: "The request for appeal should be stated with sufficient specificity to notify the Board and the Department of Natural Resources of the reasons for the appeal."

[4] *See* Appellants' Exhibit # 9.

"Graeber Memorandum") prepared and submitted at the request of the Hearing Officer by DNREC employee Ronald Graeber[5]. The Graeber Memorandum was incorporated into the Hearing Officer's Report and ultimately into the Secretary's Order. The quoted language specifically references odors:

> "...I have strong concerns regarding New Castle County's plan to discharge aerobically treated sludge into Lagoon #2...If Lagoon #2 turns anoxic or anaerobic, significant obnoxious odors will be generated, and, considerable time will be needed either to evacuate or reaerate the lagoon to eliminate the odors...." [6]

The Board finds that the odor issue and concerns regarding adequate aeration were raised, as a general concern, by Appellants in the First Notice of Appeal through their use of this quoted language. The Second Notice of Appeal, by also referencing Mr. Graeber's memo and quoting the same language, simply restated the Appellants' odor-related issue as follows: "*The Order allows conditions that will create significant obnoxious odors at the MOT Wastewater Treatment Plant Water Farm No 1.*" [7]

With respect to the "flow issue", the First Notice of Appeal raised Appellants' concerns regarding the Secretary's Order failing to address "total nitrogen loads" and the "lack of a total nitrogen limit" for discharge of the MOT Plant's treated effluent into the Appoquinimink River, as acknowledged by DNREC during the legal argument[8] and as noted in the following quote from the First Notice of Appeal:

> "The [Appellants] expressed numerous concerns at the Public Hearing... regarding potential pollutant discharges to the Appoquinimink River."[9]

---

[5] Mr. Graeber is a Program Manager in the Large Systems Branch of DNREC's Ground Water Discharges Section. *See* Exhibit # 4 to DNREC's "*Motion to Quash Subpoena Directed to Ronald Graber*".
[6] *See* First Notice of Appeal at 2.
[7] *See* Second Notice of Appeal at 7.
[8] *See* Board Hearing Transcript at 27 (line 24) & 28 (lines 1-2): "Mr. MALONEY: ...Again, I'm not arguing the total nitrogen issue was fairly raised in the original and timely filed appeal."
[9] *See* First Notice of Appeal at 2.

Quoting the Graeber Memorandum, the Appellants added (in part):

> "The public comments also raised a concern with unlimited total nitrogen loads into the Appoquinimink River from the MOT Plant…Absent a total nitrogen TMDL, [DNREC] does not have sufficient information at this time to determine a total nitrogen limit."[10]

However, the Board need not address DNREC's argument that the "flow issue" was not timely or properly raised in the First Notice of Appeal (i.e., whether that issue relates to the total nitrogen issue(s) addressed in that notice) because Appellants' counsel acknowledged at the hearing that the only two issues on appeal were "odors" and "total nitrogen".[11]

As noted above, the Board finds that the descriptions of the two issues raised by Appellants in the Second Notice of Appeal are sufficiently similar and not a substantial departure from the issues raised by Appellants in the First Notice of Appeal. In essence, the issues in the two notices are essentially the same and it is reasonable to conclude that an argument made by Appellants on the narrowly worded issues raised in the First Notice of Appeal would likely encompass the same (but more succinctly stated) issues contained in the Second Notice of Appeal. Consequently, the Board finds that the issues raised in the Second Notice of Appeal do not expand the scope of the appeal by including additional issues or arguments outside the 20-day statutory filing period. The Board does not, by this decision, in any way enlarge or expand the statutorily-prescribed time for filing appeals beyond the 20 day period. The Board does, however, note that Appellants

---

[10] *See* First Notice of Appeal at 3.

[11] *See* Board Hearing Transcript at 33 (lines 13 -20): "Mr. KRISTL: …And frankly, this flow issue that they seem to be focused on I think is an issue that I don't need to raise as an issue on appeal. It's probably going to come up when they raise one of their defenses. So I certainly raise my right to raise it then because they'll open the door. But other than that, all I need is odors and total nitrogen. And I think it's in [the First Notice of Appeal]."

should not be strictly bound by the literal meaning of certain words used in a notice of appeal.

Finally, while DNREC may have first learned about the Second Notice of Appeal at the November 17, 2006 prehearing conference, the Board does not accept DNREC's argument that it is prejudiced and subjected to undue hardship by having to defend issues raised in the Second Notice of Appeal. As previously noted, the Board does not view the issues raised by the Appellants in the Second Notice of Appeal as new or unexpected; rather they are logical extensions and more detailed explanations of the issues raised in the First Notice of Appeal. As such, the defense of these issues is unlikely to be protracted or costly, as DNREC argues. Further, the Board's hearing was conducted nearly 4 months after the prehearing conference, allowing DNREC more than adequate time to prepare its case, or to request a continuance if more preparation time was deemed necessary.

Therefore, for the foregoing reasons, DNREC's *Motion in Limine and to Limit Scope of the Appeal* is DENIED. Accordingly, Appellants' issues properly on appeal before the Board are whether the Secretary's Order should be reversed or remanded due to (1) the failure of the Order to establish a timeframe for NCC to submit a sludge management plan regarding the temporary storage of sludge in Lagoon No. 2 *and* the failure to address the potential that inadequate aeration could result in noxious odors due to the temporary storage of sludge in Lagoon No. 2 and (2) the failure of the Secretary's Order to require the inclusion of a total nitrogen limit in the NPDES Permit.

C. NEW CASTLE COUNTY'S *MOTION FOR SUMMARY DECISION*

The Board next considered NCC's *Motion for Summary Decision.* In its motion, NCC requests the Board dismiss Appellants' two issues on appeal, without a hearing on the merits.[12] The Board has ruled, as set forth above, that those issues are whether the Secretary's Order should be reversed or remanded due to (1) the failure of the Order to establish a timeframe for NCC to submit a sludge management plan regarding the temporary storage of sludge in Lagoon No. 2 *and* the failure to address the potential that inadequate aeration could result in noxious odors due to the temporary storage of sludge in Lagoon No. 2 and (2) the failure of the Secretary's Order to require the inclusion of a total nitrogen limit in the NPDES Permit. The appropriate standard of review for NCC's *Motion for Summary Decision* requires the Board to consider the evidence in a light most favorable to the non-moving party (i.e., Appellants) in making its decision.

1. Appellants' Issue Regarding the Lack of a Sludge Management Plan and Concerns Regarding Noxious Odors

In support of its motion, NCC argues that Appellants' issue regarding the lack of a sludge management plan and concerns regarding noxious odors is rendered moot due to the filing of a sludge management plan (titled "Waterfarm 1 Solids Management Plan") ("Plan")[13] by NCC, the subsequent approval of the Plan by DNREC, as well as Appellants' failure to appeal DNREC's approval of the Plan. In essence, NCC argues that the submission and approval of the Plan adequately and fully addresses the relief

---

[12] NCC's *Motion for Summary Decision* is directed to the Second Notice of Appeal and the issues raised by Appellants therein. As a result of the Board's denial of DNREC's *Motion in Limine*, the Board found those issues to be properly raised by the Appellants. NCC's *Motion for Summary Decision* also seeks dismissal of the appeal based on the Appellants' lack of standing; however that argument was deferred by NCC to be heard with DNREC's *Motion to Dismiss for Lack of Standing.*

[13] *See* Appellants' Exhibit # 16

Appellants are requesting by raising this issue. Further, NCC contends Appellants have waived any right to pursue this claim by failing to appeal or otherwise contest the DNREC's approval of the Plan.

Appellants argue that this issue is broader than the mere omission in the Secretary's Order (and the NPDES Permit) of a time deadline for NCC to file a plan to address the temporary storage of sludge in Lagoon No. 2. Appellants argue that, based on the "serious concerns" set forth in the Graeber Memorandum regarding inadequate aeration of the stored sludge in Lagoon No. 2, there is the potential for noxious odors in the event the sludge becomes anaerobic and that those concerns have not been adequately addressed by the Secretary in the Order or in the NPDES Permit. Specifically, Appellants argue the Permit should be remanded to require the Secretary to require NCC to obtain engineering analyses to determine the appropriate amount of aeration to provide sufficient oxygen needed to keep Lagoon No. 2 aerobic, in order to reduce or eliminate noxious odors. Further, Appellants contend that the mere filing of the Plan by NCC (and DNREC's subsequent approval of the Plan) does not resolve the concerns raised in the Graeber Memorandum regarding inadequate aeration. Appellants contend there are issues of fact on which the Board should hear evidence (i.e. Mr. Graeber's testimony) regarding the probability of Lagoon No. 2 becoming anaerobic and producing noxious odors and, therefore, NCC's motion for summary decision is without merit and should be denied.

The Board considered the record below, as well as the parties' pre-hearing written submissions, legal arguments made at the hearing with respect to this motion, as well as evidence introduced by the parties at the hearing. Thereafter, following deliberations, by

a majority vote of 6-1, the Board approved a motion to grant NCC's *Motion for Summary Decision* with respect to the dismissal of Appellants' claims regarding the lack of a sludge management plan and concerns regarding adequate aeration and noxious odors. The following are the Board's findings and conclusions:

The Board has ruled, in denying DNREC's *Motion in Limine to Limit Scope of the Appeal*, that Appellants' issue on appeal regarding the temporary storage of sludge in Lagoon No. 2 is broader than just the lack of a sludge management plan (and the omission in the Secretary's Order of a filing deadline for a plan); the Board ruled that the issue *also* includes Appellants' concerns regarding the potential for noxious odors resulting from temporarily stored sludge turning anaerobic due to inadequate aeration. The Board's ruling does not, however, preclude a finding by the Board that the entire, broader issue is nevertheless rendered moot by the subsequent filing of the Plan by NCC that not only addresses the temporary storage of sludge in Lagoon No. 2, but also details remedial measures and safeguards with respect to odors that may be generated by the stored sludge becoming anaerobic.

In support of their issue, Appellants rely heavily, if not exclusively, on the Graeber Memorandum, which was incorporated in the Hearing Officer's Report.[14] The Graeber Memorandum was produced in response to the Hearing Officer's memorandum request for technical assistance in the preparation of the Hearing Officer's Report.[15] In

[14] *See* Board Hearing Transcript at 38 (lines 5 - 10): "Mr. KRISTL: And I have made this offer before. I made it in my filings to the Board in response to these motions. I'll make it again. If Mr. Graeber gets up here and says the plan submitted by the County addresses all my concerns in the April 21 memo, then we will drop this issue."; *See* Board Hearing Transcript at 104 (lines 15 - 20) : "Mr. KRISTL: And we said, you know, Ron Graeber says [the Plan is] okay, great, and if he doesn't, then we stand by what we have raised initially); *See* Board Hearing Transcript at 105 (lines 9 - 10): "Mr. KRISTL: ...I will live or die with what Mr. Graeber says about [the Plan]."

[15] *See* Appellants' Exhibit # 7.

addition to Ronald Graeber, Peder Hansen[16] was also asked by the Hearing Officer to provide technical assistance.[17] Under the heading of "*Issue 3 Permit Requirement for a Plan for Managing Lagoon No. 2's Sludge Issue*", the Hearing Officer asked Messrs. Graeber and Hansen for "reasons for including (and not including) a sludge management plan as part of [the NPDES] permit."[18] In response, Ronald Graeber provided the following response, in part:

> "I have strong concerns regarding NCC's plan to discharge anaerobically treated sludge into Lagoon #2. Lagoon #2 is a 49 Million gallon lagoon designed to treat low strength wastewater, reducing BOD concentrations from 100 mg/l to 25 mg/l. Lagoon #2 has three 2HP generators capable of providing 150 pounds of oxygen per hour. This will not be enough oxygen to keep the lagoon aerobic if sludge is discharged into the lagoon. If Lagoon #2 becomes anoxic or anaerobic, significant obnoxious odors will be generated; and considerable time will be needed to either evacuate or reaerate the lagoon to eliminate the odors. Consequently, I recommend we deny the request to discharge sludge into Lagoon #2 until or unless NCC provides engineering analyses demonstrating that sufficient oxygen will be provided to keep the sludge aerobic. In the interim sludge can either be landfilled, permitted for agricultural reuse, or hauled off-site for additional processing." [19]

The other technical expert from whom the Hearing Officer requested technical assistance, Peder Hansen, provided the following response, in part, through Tony Hummel[20]:

> "Issue 3: [T]he Draft Permit require[s] management of sludge in accordance with applicable State and Federal laws and regulations. No other permit requirements regarding sludge are needed at this time. When current sludge management practices are no longer

---

[16] Mr. Hansen is a Program Manager II in DNREC's Surface Water Discharge Section. *See* Exhibit # 5 to DNREC's "*Motion to Quash Subpoena Directed to Ronald Graeber*".
[17] *See* Appellants' Exhibit # 8. This memorandum was authored by Tony Hummel but was not cited by Appellants in their arguments.
[18] *See* Appellants' Exhibit # 7.
[19] *See* Appellants' Exhibit # 9.
[20] Mr. Hummel is an Engineer IV in DNREC's Surface Water Discharges Section. *See* Exhibit # 5 to DNREC's "*Motion to Quash Subpoena Directed to Ronald Graeber*".

> effective or feasible, the facility shall be required to submit a sludge management plan to the Department for review and approval. Also, for the record, at least two other Delaware NPDES permittees currently store municipal sewer sludge in lagoons as part of their treatment programs."[21]

The Hearing Officer's Report, which expressly incorporated the Graeber Memorandum, states the following with respect to Permit requirements regarding the temporary storage of sludge in Lagoon No. 2:

> "NCC acknowledged that the SBR treatment process will significantly increase the amount of sludge that the MOT plant will generate. Currently NCC plans to store the sludge in Lagoon No. 2, although NCC is studying other disposal methods for future use. The Department's experts indicate that the storage of sludge in Lagoon No. 2 may cause a significant odor problem in the future. The Department's concern is that Lagoon No. 2 could turn anoxic or anaerobic, which would essentially result in it becoming a large open air cesspool. This result would generate considerable foul and obnoxious odors, and could be a violation of the permit and other laws and regulations.
>
> The Department could require the removal of the sludge, as recommended by some of the Department's experts. [Graeber Memorandum]. The other option is to allow NCC to continue to study the issue and make a recommendation when the study is completed, as recommended by other Department experts. [Hummel memorandum]. **I find that the temporary deposit of sludge into Lagoon No. 2 has the potential for causing a significant odor problem within the next couple of years. I find that in the near term, the use of Lagoon No. 2 is an acceptable solution for storing sludge until NCC develops a long-term solution. I do not find that the NPDES Permit needs to reflect this as a permit condition at this time, but recommend that the Department formally place NCC on notice that it is expected to continue to investigate this issue and take such prudent managerial actions to prevent any future problems.** The Department would like to avoid the release of the odors from Lagoon No. 2, which would trigger a public outcry and likely a Department enforcement action for the permit violation. The threat of future enforcement for an odor problem at a wastewater treatment plan is always present, but when a plant operator is warned about a particular problem and that problem occurs, then

[21] *See* Appellants' Exhibit # 8.

> the Department may impose even greater consequences for a permit violation. **In sum, I recommend that the draft NPDES permit be issued without requiring a plan for handling of sludge, and the Department will allow NCC to continue to study the issue in order to present the Department with a plan in the future prior to any odors problems."** [22] (Emphasis added by Board)

As this excerpt indicates, the Hearing Officer expressly considered and acknowledged the concerns raised in the Graeber Memorandum regarding the potential for odors due to inadequate aeration, but chose to recommend the issuance of the NPDES Permit *without* a requirement for an engineering analysis, or even a specific timetable for the filing of a sludge management plan.

The Secretary's Order expressly adopted the Hearing Officer's Report (in full). The Order states the following with respect to the temporary storage of sludge in Lagoon No. 2:

> "The [Hearing Officer's] Report [ ] recommends not requiring NCC to dispose of the wastewater treatment sludge, but instead to allow its temporary storage in Lagoon No. 2 until NCC prepares a disposal plan for Department review and approval. **NCC is placed on notice that it will be responsible for any odor problems from the temporary solution, and that NCC should submit its final proposed method for sludge disposal to the Department as soon as possible in order to avoid possible serious consequences from the temporary storage of sludge in Lagoon No. 2."**[23] (Emphasis added by Board)

Appellants subsequently filed their appeal requesting remand of the Secretary's Order, claiming in part that the Secretary failed to require a specific timeframe for NCC to file its sludge management plan and failed to address concerns regarding odors as expressed in the Graeber Memorandum.

---

[22] *See* Appellants' Exhibit # 10 (Hearing Officer's Report at 9 - 10).
[23] *See* Order at 3 - 4.

Prior to the hearing on this appeal, and in response to the directive in the Secretary's Order, NCC submitted its Plan to DNREC on November 3, 2006. By letter dated January 24, 2007, DNREC (through Peder Hansen) issued its formal approval of the Plan, stating the Plan "provides efficient and effective solids management." The approval letter further states DNREC's recognition that "the ability to store and continue to treat biosolids for extended periods (years) makes it impractical (and unwarranted) to provide a single detailed option or plan for ultimate disposal at this time. The conceptual plans and identification of possible options provided is satisfactory. Therefore, the Solids Management Plan for WaterFarm 1 is approved."[24]

In light of the foregoing procedural and factual background, the issue before the Board on NCC's *Motion for Summary Decision* is whether the issuance and approval of the Plan renders moot Appellants' issues related to sludge management and potential odors due to inadequate aeration of Lagoon No. 2. The Board finds that the submission of the Plan by NCC, and the subsequent approval of the Plan by DNREC, moots Appellants' claims regarding sludge management and potential odors the concerns expressed in the Graeber Memorandum.

Appellants' issue, in part, concerns the Order being issued (and Permit conditions established) without of a timetable for NCC to file its sludge management plan. The Board finds that the Plan remedies Appellants' concerns regarding the lack of a timetable for NCC to file its sludge management plan. Specifically, the Plan, which had not been filed at the time of Appellants' appeal, was submitted by NCC on November 3, 2006 and was subsequently approved by DNREC on January 24, 2007. In that regard, Appellants

[24] *See* Exhibit # 6 to DNREC's "*Motion to Quash Subpoena Directed to Ronald Graber*".

have obtained the remedy (the filing of a sludge management plan) they sought by their appeal.

The other aspect of Appellants' claim pertains to the failure of the Order (and the Permit conditions) to address the concerns in the Graeber Memorandum regarding odors resulting from the temporary storage of sludge in Lagoon No. 2. Even prior to the filing and approval of the Plan, the Secretary's decision not to specifically incorporate Graeber's aeration concerns as a condition of the NPDES Permit is not a sufficient basis alone to warrant a remand of the Secretary's action. Rather, the Secretary, in adopting the Hearing Officer's Report and issuing his Order, expressly considered the concerns raised in the Graeber Memorandum regarding the potential for odors due to inadequate aeration of the sludge in Lagoon No. 2, and chose, in his discretion, not to require an engineering analysis as a condition of the NPDES Permit.

The issuance of the Order and the Permit conditions with respect to sludge management should not depend entirely on whether Mr. Graeber's opinion is correct, as Appellants contend. Whether or not there is (or will be) adequate aeration of sludge in Lagoon No. 2 does not constitute an issue of fact that the Board must address through a hearing on the merits, nor is the Secretary's decision to not require engineering analyses grounds for remand. As noted, the Secretary has considered Graeber's aeration concerns and the Board accepts the Secretary's decision. As permitted by 7 *Del.C.* §6008(c), the Board expressly acknowledges the Secretary's experience and specialized competence in reaching his findings and conclusions set forth in the Order.

Further, the Plan, as submitted by NCC and approved by DNREC, specifically addresses NCC efforts to address potential odors emanating from the temporary storage of sludge in Lagoon No. 2. The Plan provides, in part:

> "New Castle County is committed to the operation of the facility without producing nuisance odors. In the event that nuisance odors from Lagoon 2 are detected beyond the property line, the aeration system will be increased. Should continuous operation of the existing aeration system prove insufficient to eliminate nuisance odors, additional measures shall be enacted. Such measures may include, but are not limited to: the addition of more or larger aeration units in the lagoon; the addition of aeration to deeper layers within the lagoon; identification and treatment of specific odor producing elements, bioaugmentation to increase the aerobic or anaerobic digestion within the lagoon; odor neutralization measures; mechanical mixing and aeration of the lagoon; pump and treat type system for offending elements; removal of offending elements from the lagoon; complete dredging of the lagoon of biosolids; and other measures." [25]

The Plan calls for increased use of floating aerators, among other measures, to address odors as they occur. A strict engineering analyses as to the amount of aeration needed to prevent the sludge in Lagoon No. 2 from becoming anaerobic is not practical as the amount of sludge will gradually increase over time (as opposed to increasing in successive steps), as a result of new development in the area serviced by the MOT Plant and increase in sludge as a result of the SBR treatment process. In addition, as required by the Order, the Plan also addresses the eventual disposal of the sludge from Lagoon No. 2.[26] Further, NCC is bound by the Permit to comply with all applicable federal and state laws and DNREC has placed NCC on notice that it intends to enforce any odor problems stemming from the temporary storage of sludge in Lagoon No. 2.[27]

---

[25] *See* Appellants' Exhibit # 16 (Waterfarm 1 Solids Management Plan) at 4.
[26] *Id.* at 5 - 7.
[27] *See* Order at 4.

The Order required submission of a sludge management plan that addresses odor concerns and the Plan does just that by setting forth NCC's prospective efforts and safeguards in place to address odors in emanating from Lagoon No. 2. Appellants did not attempt to effectuate an appeal or otherwise contest any specific aspect of the Plan following its approval by DNREC.[28] While the Graeber Memorandum was incorporated into the Order (through the Secretary's incorporation of the Hearing Officer's Report), it was submitted *prior* to the filing and approval of the Plan and there is nothing in the record before the Board, nor was there any persuasive evidence presented at the hearing, regarding Appellants' or Mr. Graeber's objections to the content of the Plan. In effect, Appellants have obtained the remedy they sought through the filing of the Plan. The Board, therefore, finds that the Plan fully addresses Appellants' odor-related issues raised on appeal and thereby renders those issues moot.

For the foregoing reasons, NCC's *Motion for Summary Decision* is GRANTED as to Appellants' claims regarding the lack of a sludge management plan and concerns regarding odors and those claims are therefore DISMISSED.

2. Appellants' Issue Regarding the Lack of a Total Nitrogen Limit in the NPDES Permit

In support of its motion, NCC argues that Appellants' issue regarding the Secretary's failure to impose a total nitrogen limit in the NPDES Permit for the MOT Plant is not redressable by the Board and, therefore, that claim should be dismissed. NCC contends that the Total Maximum Daily Load for the Appoquinimink River

[28] The Board does not address in this decision the issue of whether the Plan was an action of the Secretary that may be appealed pursuant to 7 *Del.C.* §6008(a).

("TMDL")[29] does not establish a total nitrogen limit for discharge from the MOT Plant. NCC further contends there are no other promulgated water quality standards or any federal or state laws or regulations requiring the imposition a total nitrogen limit for the MOT Plant in the NPDES Permit. NCC argues that a limit on Total Kjeldahl Nitrogen ("TKN"), which the NPDES Permit imposes on NCC, is appropriate because that is the form of nitrogen specifically regulated by the TMDL to control dissolved oxygen ("DO") levels affected by effluent discharges into the Appoquinimink River from the MOT Plant.

Appellants argue that the Board should remand the NPDES Permit to the Secretary because it does not include a limit on total nitrogen on effluent discharges from the MOT Plant. Appellants contend that the lack of a total nitrogen limit will adversely impact the hydrology of the Appoquinimink River. Appellants further contend that the increase in the amount of treated wastewater from the current level of approximately 300,000 gallons per day ("gpd") to as much as 2.5 million gpd will result in an increase in the amount of pollutants (including nitrogen) discharged into the Appoquinimink River and that increase warrants DNREC imposing a total nitrogen limit on the discharge. Appellants acknowledge the TDML does not regulate total nitrogen for the segment of the Appoquinimink River into which the MOT Plant discharges treated effluent, but argue that DNREC has the power and authority to impose a total nitrogen limit, notwithstanding the TDML. Appellants contend that the waste load allocations ("WLAs") in the TMDL for the MOT Plant are no longer applicable because they were based on a baseline flow of 500,000 gpd, rather than the 2.5 million gpd permitted under

[29] Environmental Protections Agency's "*Nutrient and Dissolved Oxygen TMDL Development for Appoquinimink River, Delaware, December 2003*" (Appellants' Exhibit # 1)

the NPDES Permit. Appellants further contend that DNREC removed the flow limitation in the Permit in order to accommodate NCC's compliance with the TMDL.

The Board considered the record below, as well as the parties' pre-hearing written submissions, legal arguments made at the hearing with respect to this motion, as well as evidence introduced by the parties at the hearing. Thereafter, following deliberations, the Board unanimously approved a motion to grant NCC's *Motion for Summary Decision* with respect to the dismissal of Appellants' claim related to the lack of a total nitrogen limit in the NPDES Permit. The following are the Board's findings and conclusions:

Following public hearing and public comments regarding exclusion of a total nitrogen limit (and inclusion of a TKN limit) in the draft NPDES Permit, the Hearing Officer requested technical assistance from DNREC personnel regarding the "draft permit's use of TKN versus Nitrogen," recognizing "that the TMDLs, as regulations, are not subject to revision in this permit proceeding or otherwise may be challenged" and "[DNREC] must issue a permit based upon the current TMDLs..." [30] In response to this request, DNREC Engineer Tony Hummel[31] responded to the Hearing Officer as follows:

> "As indicated in the Public Notice Draft Fact Sheet and reiterated in the public hearing testimony, the limit for Total Kjeldahl Nitrogen (TKN) was based on the waste load allocations (WLA) for the facility from the TMDL. The TMDL included a WLA for TKN based on the concern for dissolved oxygen (DO) impairment, not nutrients. As explained in the hearing testimony, TKN impairs DO, whereas the nitrate/nitrite (NO_3/ NO_2) portion of total nitrogen (TN) does not. Other than the TKN WLA in the TMDL, no other State or Federal water quality standards for nitrogen exist at this time. If at some later date a water quality standard or WLA is promulgated for TN, the standard would be implemented in the next permit reissuance or the permit could be reopened to include a TN limit." [32]

[30] *See* Appellants' Exhibit # 7 ("Issue 2")
[31] *See* fn. 20.
[32] *See* Appellants' Exhibit # 8

The Hearing Officer's Report, which incorporated the memorandum prepared by Mr. Hummel, stated the following, in part, regarding the inclusion of a total nitrogen limit in the NPDES Permit for the MOT Plant:

> "The public comments [ ] raised a concern with unlimited total nitrogen load into the Appoquinimink River from the MOT Plant. Again, the Department shares this concern. Absent a total nitrogen TMDL, the Department does not have sufficient information at this time to determine a total nitrogen limit. Nevertheless, the Department is aware that the SBR method could increase the amount of potentially harmful total nitrogen entering the Appoquinimink Rover. The Department recognizes the need to limit total nitrogen in its TMDLs because of its potentially harmful impact on water quality, particularly during warmer weather. Indeed, EPA's TMDLs for the Appoquinimink River do include limits [for] total nitrogen for every other segment of the Appoquinimink River except for the waste load allocation ("WLA") assigned to the MOT Plant. Thus, the Department is concerned with the total nitrogen discharge, particularly with the SBR treatment method, but this concern will be addressed in the LTS permit and not the NPDES permit until more information is available." [33]

The Secretary expressly adopted the Hearing Officer's Report and in his Order stated the following with respect to the inclusion of a total nitrogen limit in the NPDES Permit for the MOT Plant:

> "[A] concern is the potential adverse impact from increased discharges of the MOT Plant's treated effluent into the Appoquinimink River. This concern will be addressed in a LTS permit condition that shall require NCC to use spray irrigation to the maximum extent possible [ ] before any surface discharge may occur during warm weather months. While the Department could impose a discharge limit in the NPDES permit, the Department determines that such a limit would not allow NCC operational flexibility that is needed. The operational flexibility is based upon the Department's approval of the MOT plant's expansion to treat 2.5 million [gpd] in order to meet the growing demand for central sewer service in southern New Castle County. Currently, NCC can use spray irrigation for up to an average of 1.0

[33] *See* Appellant's Exhibit # 10 (Hearing Officer's Report at 8)

> mgd based upon operational restrictions. Thus, the NPDES permit should allow NCC the operational flexibility to use a surface water discharge when necessary, but the Department will also impose in the LTS permit a condition that will require NCC to use spray irrigation to the maximum extent possible during the warm weather months before any surface water discharge may occur."[34]

Hence, the Secretary concluded that the inclusion of a total nitrogen limit in the NPDES Permit was not necessary.

In light of the foregoing procedural and factual background, the issue before the Board on NCC's *Motion for Summary Decision* is whether the Appellants' claim regarding the inclusion of a total nitrogen limit in the NPDES Permit is redressable, i.e., whether it is a claim for which the Board can grant the relief requested.

The Board finds that there is no basis to have required the Secretary to include such a limit in the Permit and therefore, this claim is not redressable. There are no federal or state requirements mandating DNREC include a total nitrogen limit in the NPDES Permit for the MOT Plant. Therefore, there is simply no legal basis on which this Board could remand the NPDES Permit to impose a limit on total nitrogen beyond what the TMDL requires.

The TMDL for the Appoquinimink River was updated and approved by the Environmental Protection Agency in December 2003 and establishes specific WLAs for the MOT Plant, which is the only non-stormwater point source discharger on the Appoquinimink River.[35] The TDML imposes total nitrogen ("TN") limits for all segments of the Appoquinimink River watershed *except* for the segment into which the MOT Plant discharges treated wastewater effluent. Rather than imposing a total nitrogen

---

[34] *See* Order at 2 -3.

[35] *See* Tables ES-1 and ES-2 in the Executive Summary of the TMDL (Appellants' Exhibit # 1). Table ES-2 sets forth specific WLAs for certain parameters (including Flow, Total Kjeldahl Nitrogen (TKN) and Total Phosphorus (TP)) for the MOT Plant's NPDES Permit.

limit, the TDML imposes a Total Kjeldahl Nitrogen (TKN)[36] limit on treated effluent discharge from MOT Plant because TKN has been found to impact in-stream dissolved oxygen ("DO") concentrations, whereas nitrite and nitrate portions of total nitrogen do not. DO is expressly addressed in (and protected by) the TMDL's water quality standards, and there are no water quality criteria for nutrients to support a total nitrogen limit.

The NPDES Permit increases the effluent limitation on flow from the MOT Plant from the current 300,000 gpd to as much as 2.5 million gpd. However, the actual flow amount is limited by the MOT Plant's operational capacity, which is only 1.8 million gpd. In fact, the NPDES Permit expressly states "[n]o flow limit is proposed in the permit; however operations will be constrained by the design flow of the new facilities."[37] To further reduce flow levels, the Order specifically requires the LTS Permit to include a provision that NCC utilize spray irrigation "to the maximum extent possible" during the summer months before any surface water discharge may occur.

While flow may impact the amount of TKN (and ultimately the amount of total nitrogen) discharged from the MOT Plant, the Board finds that the amount of TKN discharged into the Appoquinimink River is ultimately and directly limited by the TKN mass loading limitation, which is expressly regulated by the TMDL (not to exceed 10.4 lbs/day) and by the NPDES Permit (not to exceed 3,796 lbs/year on rolling 12-month cumulative average). Regardless of the flow (which will increase or decrease on a daily basis), the TKN discharge is strictly limited not to exceed the TMDL levels (which must be maintained by NCC *regardless* of the fluctuations in the flow). Simply put, TKN is

---

[36] Total Kjeldahl Nitrogen ("TKN") is organic nitrogen and ammonia nitrogen, but does not include nitrites and nitrates. Total nitrogen includes TKN *and* nitrates and nitrites.
[37] *See* Appellants' Exhibit # 6, Page 2 (NPDES Draft Permit Fact Sheet)

controlled by maximum allowable throughput from the MOT Plant and if TKN is controlled, then DO concentrations are controlled as required by the TMDL.

The Board rejects Appellants' argument that the Secretary's reliance on the TMDL is misplaced because the discharge parameters are based on certain assumptions regarding flow (500,000 gpd) and that those assumptions are not present here because, under the NPDES Permit, the flow from the MOT Plant may be as much as 2.5 million gpd. The flow limit (500,000 gpd) referenced in the TMDL was used to calibrate the underlying mathematical model and has no direct bearing on the TKN WLAs.

Further, Appellants' argument that DNREC's omission of the flow limitation in the NPDES Permit will ultimately result in increased nitrogen discharge is without merit. NCC is still absolutely limited by the TMDL's mass loading requirement, which makes the flow irrelevant for purposes of the NPDES Permit because discharge is limited.

In sum, nitrogen levels with respect to the MOT Plant are adequately addressed and controlled by the water quality standards in the TMDL and there is no legal basis for imposing a total nitrogen level in the NPDES Permit. Accordingly, Appellants' claim that the NPDES Permit should be remanded to include a total nitrogen limit is not actionable by this Board.

For the foregoing reasons, NCC's *Motion for Summary Decision* is GRANTED as to the redressability of Appellants' claim regarding the lack of a total nitrogen limit in the NPDES Permit for the MOT Plant and that claim is therefore DISMISSED.

D. DNREC'S AND NCC'S *MOTIONS TO DISMISS FOR LACK OF STANDING*

These motions were rendered moot as a result of the Board's ruling on NCC's *Motion for Summary Decision*.[38] Therefore, the Board did not hear argument or rule on these Motions.

E. DNREC'S *MOTION TO QUASH SUBPOENA DIRECTED TO RONALD GRAEBER*

DNREC's *Motion to Quash Subpoena Directed to Ronald Graeber* was rendered moot as a result of the Board's ruling on NCC's *Motion for Summary Decision*. Further, Appellants chose not to call Mr. Graeber as a witness during the hearing on DNREC's *Motion in Limine and to Limit Scope of the Appeal* or NCC's *Motion for Summary Decision.* Therefore, the permissibility and admissibility of the testimony of Mr. Graeber that DNREC presumably sought to exclude was not a matter before the Board for consideration and the Board did not hear argument or rule on this Motion.

SO ORDERED, this 11th day of June, 2007.

ENVIRONMENTAL APPEALS BOARD

The following Board members concur in this decision.

Nancy J. Shevock
Chairperson

Date: June 11, 2007

[38] NCC's *Motion to Dismiss for Lack of Standing* was incorporated into its *Motion for Summary Decision* (*See* fn. 12)

Peter McLaughlin
Board Member

Date: Mon 04 June 2007

Environmental Appeals Board
Appeal 2006-02

Gordon Wood
Board Member

Date: January 10, 2007

Environmental Appeals Board
Appeal 2006-02

Harold Gray
Board Member

Date: 6/7/07

Environmental Appeals Board
Appeal 2006-02

Stanley Tocker
Board Member

Date: 5/29/07

Environmental Appeals Board
Appeal 2006-02

Sebastian LaRocca
Board Member

Date: 5-25-07

Environmental Appeals Board
Appeal 2006-02

Voting "NO" on the Board's motion regarding New Castle County's *Motion for Summary Decision* with respect to the issue regarding the lack of the sludge management plan and concerns regarding odors, but CONCURRING in the Board's decision in all other respects:

Harry Hunsicker
Board Member

Date: 6/1/07